

RAW SEQUENCE LISTING

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Application Serial Number: 091674,237c
Source: FEW16
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IFW16

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/674,237C

DATE: 05/25/2005

TIME: 13:53:57

Input Set : A:\3477.89.ST25.txt
 Output Set: N:\CRF4\05252005\I674237C.raw

3 <110> APPLICANT: Egan, Sean E.
 4 Wang, Wei
 5 Sengar, Ameet
 7 <120> TITLE OF INVENTION: ESE GENES AND PROTEINS
 9 <130> FILE REFERENCE: 3477-89
 11 <140> CURRENT APPLICATION NUMBER: US 09/674,237C
 12 <141> CURRENT FILING DATE: 2001-07-24
 14 <150> PRIOR APPLICATION NUMBER: PCT/CA99/00375
 15 <151> PRIOR FILING DATE: 1999-04-27
 17 <150> PRIOR APPLICATION NUMBER: US 60/118,739
 18 <151> PRIOR FILING DATE: 1999-02-05
 20 <150> PRIOR APPLICATION NUMBER: CA 2230201
 21 <151> PRIOR FILING DATE: 1998-04-27
 23 <160> NUMBER OF SEQ ID NOS: 37
 25 <170> SOFTWARE: PatentIn version 3.3
 27 <210> SEQ ID NO: 1
 28 <211> LENGTH: 5084
 29 <212> TYPE: DNA
 30 <213> ORGANISM: Mus musculus
 32 <400> SEQUENCE: 1
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 37 cgggcgggga tggtgtgcgc ggctgcggac tcggcggtcc tcgcgcggcg tgcgggctgc 180
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 41 ggtgaacgta atagaaccat ggctcagttt cccacaccc ttccgggttag cctggatgtc 300
 43 tggccataa ctgtggagga aaggggccaag catgaccagc agttccttag cctgaagccg 360
 45 atagcgggat ttattactgg ttagcaagcg aggaactttt ttttccaatc tgggttacct 420
 47 cagcctgtct tagcacaat atgggcgcta gcggacatga ataacgatgg aaggatggat 480
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 51 ccctccacac ttccccctgt catgaaacag caaccagtgg ctatccatc tgccaccagca 600
 53 tttggtatag gagggattgc tagcatgcca ccactcacag ctgttgcctc tgtgccaatq 660
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 61 aacactaagt tacagaaggc acaatcattc gatgtcgcca ggcgcctcc agcagcagaa 900
 63 tgggctgtgc ctcagtcattc aaggctgaaa tacaggcgt tattcaacag ccacgacaaa 960
 65 actatgatgt gacactaac aggtccccag gcaagaacta ttctcatgca atcaagttt 1020
 67 ccccaggctc agctggcttca aatatggaaat ctttctgaca ttgatcaaga tggaaaactc 1080
 69 actgcagaag aatttataatcct agtcatgac ctaattgtat ttgccatgtc tggcagcc 1140
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 73 agtggatgt ccgtcataag ctcttcttct gtggatcaga ggctgcctga ggagccgtcg 1260
 75 tcagaggatg agcagcagcc agagaagaaa ctgcctgtga catttgaaga taagaagcgg 1320
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| 79 | cagcgcaaag | agcaggagcg | gttggctca | ctggagcg | ccgagcagga | gaggaaagag | 1440 |
| 81 | cgggagcgcc | aggagcagga | ggccaagcg | cagctggagc | tggagaagca | gctggagaag | 1500 |
| 83 | cagcgggagc | tggagcggca | gcgagaggag | gagaggagga | aggagatcga | gaggcgcgag | 1560 |
| 85 | gccgc当地 | gggaactgga | aaggcagcg | caacttgaat | gggaacggaa | ccggagacag | 1620 |
| 87 | gaactcctga | atcagaggaa | caaggagcg | gagggcaccg | tggcctgaa | ggcaaggagg | 1680 |
| 89 | aagactctgg | agtttgagtt | agaagctctg | aatgacaaaa | agcatcagct | agaaggaaaa | 1740 |
| 91 | cttcaggata | tcaggtgtcg | actggcaacc | cagaggcaag | aaatttgagag | cacgaacaag | 1800 |
| 93 | tcttagagagc | taagaattgc | tgaaatcacc | cacttacagc | agcagtgtca | ggaatctcag | 1860 |
| 95 | caaatgcttgc | gaagacttat | tccagagaaa | cagatactca | gtgaccagg | aaaacaagtc | 1920 |
| 97 | cagcagaaca | gtttgcata | agactcgctt | cttaccctca | aaagagcctt | ggaagcaaaag | 1980 |
| 99 | gagctggccc | ggcagcagct | ccgggagcg | ctggacgagg | tggagagaga | gaccaggta | 2040 |
| 101 | aagctgcagg | agattgtatgt | tttcaacaac | cagctgaagg | aacttgagaga | gatacatagc | 2100 |
| 103 | aaacagcaac | tccagaagca | gaggtccctg | gaggcagcg | gactgaagca | gaaagagcag | 2160 |
| 105 | gagaggaaga | gcctggagtt | agagaagcaa | aaggaagacg | ctcagagacg | agttcaggaa | 2220 |
| 107 | agggacaagc | aatggctgga | gcatgtcgag | caggaggagc | agccacgccc | ccggaaacccc | 2280 |
| 109 | cacgaggagg | acagactgaa | gagggaaagac | agtgtcagga | agaaggaggc | ggaagagaga | 2340 |
| 111 | gcccaagccgg | aaatgcaaga | caagcagagt | cggctttcc | atccgcata | ggagccagct | 2400 |
| 113 | aagctggcca | cccaggcacc | ctggcttacc | acagagaaa | gcccccttac | catttctgca | 2460 |
| 115 | caggagatgt | taaaaatgtt | atattaccga | gcgtgttacc | cctttgaatc | cagaagtac | 2520 |
| 117 | gatgagatca | ccatccagcc | aggagatata | gtcatggtgg | atgaaagcca | gactggagag | 2580 |
| 119 | ccaggatggc | ttggaggaga | gctgaaaggg | aagacgggat | ggttccctgc | aaactatgca | 2640 |
| 121 | aaaaagattc | cagaaaatga | gttcccact | ccagccaaac | cagtgaccga | tctgacatct | 2700 |
| 123 | gccctgccc | ccaaactggc | tctgcgtgag | accctctgct | cttgccttgt | gacctcttct | 2760 |
| 125 | gaccctcca | caaccccaa | caactggca | gacttcagtt | ccacgtggcc | cagcagctca | 2820 |
| 127 | aacgagaagc | cagaaacgga | caactggat | acgtggcg | ctcagcctt | tctgaccgt | 2880 |
| 129 | cctagtgtcg | gccagttacg | gcagagatca | gccttaccc | cagccacagc | cactggctcc | 2940 |
| 131 | tcccatctc | ccgtcctggg | ccagggtgaa | aaggtggaa | ggctacaagc | gcaagccctg | 3000 |
| 133 | tatccctgga | gagccaaaaa | agacaaccac | ttaaatttt | acaaaagtga | cgtcatcacc | 3060 |
| 135 | gttctggAAC | agcaagacat | gtgggtgtt | ggagaagttc | aaggtcagaa | gggttggttc | 3120 |
| 137 | ccaaagtctt | acgtgaaact | catttcagg | cccgtaagga | aatccacaag | catcgatact | 3180 |
| 139 | ggccctactg | aaagtccctgc | tagtctaaag | agagtggctt | ccccggccgc | caagccagcc | 3240 |
| 141 | attcccgag | aagagtttat | tgccatgtac | acatacgaga | gttctgacca | aggagattta | 3300 |
| 143 | acctttcagc | aaaggatgt | gattgtggtt | accaagaaa | atggtaactg | gtggacggga | 3360 |
| 145 | acgggtggcg | acaagtccgg | agtcttccct | tctaactatg | tgaggcttaa | agattcagag | 3420 |
| 147 | ggctctggaa | ctgctggaa | aacagggagt | ttaggaaaaa | aacctgaaat | tgcccaggtt | 3480 |
| 149 | attgcttcct | acgctgtac | tggtcccgaa | caactcaccc | tggctctgg | gcagctgatt | 3540 |
| 151 | ctgatccgga | aaaagaaccc | aggtggatgg | tgggaaggag | aactgcaagc | tcgagggaaa | 3600 |
| 153 | aagcgccaga | taggtggtt | tccagcaa | tatgtcaaa | ttctaaagccc | cggaacaagc | 3660 |
| 155 | aaaatcaccc | caactgagct | acccaaagacc | gcagtgcagc | cagcagtg | ccaggtgatc | 3720 |
| 157 | gggatgtacg | attacaccgc | ccagaacgat | gacgaactag | ccttcagcaa | aggccagatc | 3780 |
| 159 | atcaacgtcc | tcaacaagga | ggaccggac | tggtgaaag | gagaagtcag | tggcaagtt | 3840 |
| 161 | gggcttcc | catccaatta | tgtaaagctg | accacagaca | tggacccag | ccagcaatga | 3900 |
| 163 | atcatatgtt | gtccatcccc | ccctcaggct | tgaaagtctt | caaagagacc | cactatccca | 3960 |
| 165 | tatcactgccc | cagagggatg | atgggagatg | cagccttgc | catgtgactt | gcagcatgat | 4020 |
| 167 | cacctactgc | cttctgagta | gaagaactca | ctgcagagca | gtttacctt | tttgacctt | 4080 |
| 169 | gttgcata | atcgaaatgt | ctgagtcact | gcgtgcagag | gcagaagcaa | attgcagaac | 4140 |
| 171 | tgcacagggt | ggtgggtcct | tttggggctt | tccttagtac | tcagactgac | cggccccgccc | 4200 |
| 173 | ttcacacggg | cgcttcaat | agtttaaga | ttattttaa | atgtgtat | tagcccttta | 4260 |
| 175 | ataaaaaatct | caatcaatta | tttcttgc | tatgggtt | ttacaaaaac | acccactatc | 4320 |

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| 177 | aaggagtgcc | tgtctgcgga | cgattaaaat | gctgttccgg | gcgtaccgta | aactgagagc | 4380 | | | | | | | | | | | |
| 179 | ttgctgtacc | tttgcgtt | gtccagtgtt | cccaaccaca | ttgtgttagtt | tggggctgtt | 4440 | | | | | | | | | | | |
| 181 | ccctgcgtta | gagcacagag | gagatgggtt | tacctgttt | aaaaatgtgt | attagactg | 4500 | | | | | | | | | | | |
| 183 | agcctgacta | tggaaagggtt | tatgcttgc | tgtgaccatc | acgtgtacct | gtcgcgcatg | 4560 | | | | | | | | | | | |
| 185 | taccatctgt | accgaagaag | tagctttcc | tccatggcta | aaccaccac | cgtgtacagt | 4620 | | | | | | | | | | | |
| 187 | gctctcatct | actgcattca | ttttactttt | cacagtgacc | ttgttagccac | ctgaggaagc | 4680 | | | | | | | | | | | |
| 189 | acccatgttt | ccgttggtc | tcagatgtac | ctagttgtgc | ccgtgtttt | tttttatttt | 4740 | | | | | | | | | | | |
| 191 | tcaatctggc | atgtcttcac | accataaaact | agtaagacgc | caactgccca | ggcggttacg | 4800 | | | | | | | | | | | |
| 193 | atcatcagta | cccaccgtct | tagtctctgt | tacgtgaagt | ttattccagt | tgcttttat | 4860 | | | | | | | | | | | |
| 195 | ggaatatctt | gaacaagtaa | tcttcttgac | aagaaaagaat | gtatagaagt | ctccctgcaa | 4920 | | | | | | | | | | | |
| 197 | ttaatttccc | agtgtttaca | tttttaact | agactgtggg | ggttgctaca | gattaatatg | 4980 | | | | | | | | | | | |
| 199 | aaatggcgct | cctggtccgt | gtgtgtgtta | acttgtgctg | tagctgaagc | cgtgtgtcct | 5040 | | | | | | | | | | | |
| 201 | tagatattag | ttggaaagtcg | ggaagagaat | tcgatatcaa | gctt | | 5084 | | | | | | | | | | | |
| 204 | <210> | SEQ ID NO: | 2 | | | | | | | | | | | | | | | |
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| 206 | <212> | TYPE: | DNA | | | | | | | | | | | | | | | |
| 207 | <213> | ORGANISM: | Mus musculus | | | | | | | | | | | | | | | |
| 210 | <220> | FEATURE: | | | | | | | | | | | | | | | | |
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| 216 | atg | gct | cag | ttt | ccc | aca | cct | ttc | ggt | ggt | agc | ctg | gat | gtc | tgg | gcc | 48 | |
| 217 | Met | Ala | Gln | Phe | Pro | Thr | Pro | Phe | Gly | Gly | Ser | Leu | Asp | Val | Trp | Ala | | |
| 218 | 1 | | | | | | 5 | | | | 10 | | | | 15 | | | |
| 220 | ata | act | gtg | gag | gaa | agg | gcc | aag | cat | gac | cag | cag | ttc | ctt | agc | ctg | 96 | |
| 221 | Ile | Thr | Val | Glu | Glu | Arg | Ala | Lys | His | Asp | Gln | Gln | Phe | Leu | Ser | Leu | | |
| 222 | | | | | | | 20 | | | 25 | | | | 30 | | | | |
| 224 | aag | ccg | ata | gcg | gga | ttt | att | act | ggt | gat | caa | gcg | agg | aac | ttt | ttt | 144 | |
| 225 | Lys | Pro | Ile | Ala | Gly | Phe | Ile | Thr | Gly | Asp | Gln | Ala | Arg | Asn | Phe | Phe | | |
| 226 | | | | | | | 35 | | | 40 | | | | 45 | | | | |
| 228 | ttc | caa | tct | ggg | tta | cct | cag | cct | gtc | tta | gca | caa | ata | tgg | gcg | cta | 192 | |
| 229 | Phe | Gln | Ser | Gly | Leu | Pro | Gln | Pro | Val | Leu | Ala | Gln | Ile | Trp | Ala | Leu | | |
| 230 | | | | | | | 50 | | | 55 | | | | 60 | | | | |
| 232 | gcg | gac | atg | aat | aac | gat | gga | agg | atg | gat | caa | gtg | gaa | ttt | tcc | ata | 240 | |
| 233 | Ala | Asp | Met | Asn | Asn | Asp | Gly | Arg | Met | Asp | Gln | Val | Glu | Phe | Ser | Ile | | |
| 234 | | | | | | | 65 | | | 70 | | | | 75 | | 80 | | |
| 236 | gcc | atg | aag | ctt | atc | aaa | ctg | aag | cta | caa | gga | tat | cag | ctc | ccc | tcc | 288 | |
| 237 | Ala | Met | Lys | Leu | Ile | Lys | Leu | Lys | Leu | Gln | Gly | Tyr | Gln | Leu | Pro | Ser | | |
| 238 | | | | | | | 85 | | | 90 | | | | 95 | | | | |
| 240 | aca | ctt | ccc | cct | gtc | atg | aaa | cag | caa | cca | gtg | gct | att | tcc | agt | gca | 336 | |
| 241 | Thr | Leu | Pro | Pro | Val | Met | Lys | Gln | Gln | Pro | Val | Ala | Ile | Ser | Ser | Ala | | |
| 242 | | | | | | | 100 | | | 105 | | | | 110 | | | | |
| 244 | cca | gca | ttt | ggt | ata | gga | ggg | att | gct | agc | atg | cca | cca | ctc | aca | gct | 384 | |
| 245 | Pro | Ala | Phe | Gly | Ile | Gly | Ile | Ala | Ser | Met | Pro | Pro | Leu | Thr | Ala | | | |
| 246 | | | | | | | 115 | | | 120 | | | | 125 | | | | |
| 248 | gtt | gct | cct | gtg | cca | atg | ggc | tcc | att | cca | gtt | gga | atg | tct | cca | | 432 | |
| 249 | Val | Ala | Pro | Val | Pro | Met | Gly | Ser | Ile | Pro | Val | Val | Gly | Met | Ser | Pro | | |
| 250 | | | | | | | 130 | | | 135 | | | | 140 | | | | |

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|-----|---|------|
| 252 | ccc tta gta tct tct gtc cct cca gca gca gtg cct ccc ctg gct aac | 480 |
| 253 | Pro Leu Val Ser Ser Val Pro Pro Ala Ala Val Pro Pro Leu Ala Asn | |
| 254 | 145 150 155 160 | |
| 256 | ggg gct cct ccc gtc ata cag cct ctg cct gcg ttt gcg cat cct gca | 528 |
| 257 | Gly Ala Pro Pro Val Ile Gln Pro Leu Pro Ala Phe Ala His Pro Ala | |
| 258 | 165 170 175 | |
| 260 | gcc aca tgg cca aag agt tct tcc ttc agc aga tct ggt cca ggg tca | 576 |
| 261 | Ala Thr Trp Pro Lys Ser Ser Phe Ser Arg Ser Gly Pro Gly Ser | |
| 262 | 180 185 190 | |
| 264 | caa tta aac act aag tta cag aag gca caa tca ttc gat gtc gcc agc | 624 |
| 265 | Gln Leu Asn Thr Lys Leu Gln Lys Ala Gln Ser Phe Asp Val Ala Ser | |
| 266 | 195 200 205 | |
| 268 | gcc cct cca gca gca gaa tgg gct gtg cct cag tca tca agg ctg aaa | 672 |
| 269 | Ala Pro Pro Ala Ala Glu Trp Ala Val Pro Gln Ser Ser Arg Leu Lys | |
| 270 | 210 215 220 | |
| 272 | tac agg cag tta ttc aac agc cac gac aaa act atg agt gga cac tta | 720 |
| 273 | Tyr Arg Gln Leu Phe Asn Ser His Asp Lys Thr Met Ser Gly His Leu | |
| 274 | 225 230 235 240 | |
| 276 | aca ggt ccc cag gca aga act att ctc atg caa tca agt tta ccc cag | 768 |
| 277 | Thr Gly Pro Gln Ala Arg Thr Ile Leu Met Gln Ser Ser Leu Pro Gln | |
| 278 | 245 250 255 | |
| 280 | gct cag ctg gct tca ata tgg aat ctt tct gac att gat caa gat gga | 816 |
| 281 | Ala Gln Leu Ala Ser Ile Trp Asn Leu Ser Asp Ile Asp Gln Asp Gly | |
| 282 | 260 265 270 | |
| 284 | aaa ctc act gca gaa gaa ttt atc cta gct atg cac cta att gat gtt | 864 |
| 285 | Lys Leu Thr Ala Glu Glu Phe Ile Leu Ala Met His Leu Ile Asp Val | |
| 286 | 275 280 285 | |
| 288 | gcc atg tct ggt cag cca ctg ccg ccc gtc ctg cct cca gaa tac atc | 912 |
| 289 | Ala Met Ser Gly Gln Pro Leu Pro Pro Val Leu Pro Pro Glu Tyr Ile | |
| 290 | 290 295 300 | |
| 292 | cct cct tcc ttc aga aga gtt cgc tcc ggc agt ggg atg tcc gtc ata | 960 |
| 293 | Pro Pro Ser Phe Arg Arg Val Arg Ser Gly Ser Gly Met Ser Val Ile | |
| 294 | 305 310 315 320 | |
| 296 | agc tct tct gtg gat cag agg ctg cct gag gag ccg tcg tca gag | 1008 |
| 297 | Ser Ser Ser Val Asp Gln Arg Leu Pro Glu Glu Pro Ser Ser Glu | |
| 298 | 325 330 335 | |
| 300 | gat gag cag cag cca gag aag aaa ctg cct gtg aca ttt gaa gat aag | 1056 |
| 301 | Asp Glu Gln Gln Pro Glu Lys Lys Leu Pro Val Thr Phe Glu Asp Lys | |
| 302 | 340 345 350 | |
| 304 | aag cgg gag aac ttc gag cga ggc agt gtg gag ctg gag aag cgc cgc | 1104 |
| 305 | Lys Arg Glu Asn Phe Glu Arg Gly Ser Val Glu Leu Glu Lys Arg Arg | |
| 306 | 355 360 365 | |
| 308 | caa gcg ctc ttg gag cag cag cgc aaa gag cag gag cgg ttg gct cag | 1152 |
| 309 | Gln Ala Leu Leu Glu Gln Gln Arg Lys Glu Gln Glu Arg Leu Ala Gln | |
| 310 | 370 375 380 | |
| 312 | ctg gag cgc gcc gag cag gag agg aaa gag cgg gag cgc cag gag cag | 1200 |
| 313 | Leu Glu Arg Ala Glu Gln Glu Arg Lys Glu Arg Glu Arg Gln Glu Gln | |
| 314 | 385 390 395 400 | |
| 316 | gag gcc aag cgg cag ctg gag aag cag ctg gag aag cag cgg | 1248 |

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|-----|---|------|-----|-----|
| 317 | Glu Ala Lys Arg Gln Leu Glu Leu Glu Lys Gln Leu Glu Lys Gln Arg | | | |
| 318 | 405 | 410 | 415 | |
| 320 | gag ctg gag cgg cag cga gag gag gag agg aag gag atc gag agg | 1296 | | |
| 321 | Glu Leu Glu Arg Gln Arg Glu Glu Arg Arg Lys Glu Ile Glu Arg | | | |
| 322 | 420 | 425 | 430 | |
| 324 | cgc gag gcc gca aaa cgg gaa ctg gaa agg cag cga caa ctt gaa tgg | 1344 | | |
| 325 | Arg Glu Ala Ala Lys Arg Glu Leu Glu Arg Gln Arg Gln Leu Glu Trp | | | |
| 326 | 435 | 440 | 445 | |
| 328 | gaa cgg aac cgg aga cag gaa ctc ctg aat cag agg aac aag gag cag | 1392 | | |
| 329 | Glu Arg Asn Arg Arg Gln Glu Leu Leu Asn Gln Arg Asn Lys Glu Gln | | | |
| 330 | 450 | 455 | 460 | |
| 332 | gag ggc acc gtg gtc ctg aag gca agg agg aag act ctg gag ttt gag | 1440 | | |
| 333 | Glu Gly Thr Val Val Leu Lys Ala Arg Arg Lys Thr Leu Glu Phe Glu | | | |
| 334 | 465 | 470 | 475 | 480 |
| 336 | tta gaa gct ctg aat gac aaa aag cat cag cta gaa gga aaa ctt cag | 1488 | | |
| 337 | Leu Glu Ala Leu Asn Asp Lys Lys His Gln Leu Glu Gly Lys Leu Gln | | | |
| 338 | 485 | 490 | 495 | |
| 340 | gat atc agg tgt cga ctg gca acc cag agg caa gaa att gag agc acg | 1536 | | |
| 341 | Asp Ile Arg Cys Arg Leu Ala Thr Gln Arg Gln Glu Ile Glu Ser Thr | | | |
| 342 | 500 | 505 | 510 | |
| 344 | aac aag tct aga gag cta aga att gct gaa atc acc cac tta cag cag | 1584 | | |
| 345 | Asn Lys Ser Arg Glu Leu Arg Ile Ala Glu Ile Thr His Leu Gln Gln | | | |
| 346 | 515 | 520 | 525 | |
| 348 | cag ttg cag gaa tct cag caa atg ctt gga aga ctt att cca gag aaa | 1632 | | |
| 349 | Gln Leu Gln Glu Ser Gln Gln Met Leu Gly Arg Leu Ile Pro Glu Lys | | | |
| 350 | 530 | 535 | 540 | |
| 352 | cag ata ctc agt gac cag tta aaa caa gtc cag cag aac agt ttg cat | 1680 | | |
| 353 | Gln Ile Leu Ser Asp Gln Leu Lys Gln Val Gln Gln Asn Ser Leu His | | | |
| 354 | 545 | 550 | 555 | 560 |
| 356 | aga gac tcg ctt ctt acc ctc aaa aga gcc ttg gaa gca aag gag ctg | 1728 | | |
| 357 | Arg Asp Ser Leu Leu Thr Leu Lys Arg Ala Leu Glu Ala Lys Glu Leu | | | |
| 358 | 565 | 570 | 575 | |
| 360 | gcc cgg cag cag ctc cgg gag cag ctg gac gag gtg gag aga gag acc | 1776 | | |
| 361 | Ala Arg Gln Gln Leu Arg Glu Gln Leu Asp Glu Val Glu Arg Glu Thr | | | |
| 362 | 580 | 585 | 590 | |
| 364 | agg tca aag ctg cag gag att gat gtt ttc aac aac cag ctg aag gaa | 1824 | | |
| 365 | Arg Ser Lys Leu Gln Glu Ile Asp Val Phe Asn Asn Gln Leu Lys Glu | | | |
| 366 | 595 | 600 | 605 | |
| 368 | ctg aga gag ata cat agc aaa cag caa ctc cag aag cag agg tcc ctg | 1872 | | |
| 369 | Leu Arg Glu Ile His Ser Lys Gln Gln Leu Gln Lys Gln Arg Ser Leu | | | |
| 370 | 610 | 615 | 620 | |
| 372 | gag gca gcg cga ctg aag cag aaa gag cag gag agg aag agc ctg gag | 1920 | | |
| 373 | Glu Ala Ala Arg Leu Lys Gln Lys Glu Gln Glu Arg Lys Ser Leu Glu | | | |
| 374 | 625 | 630 | 635 | 640 |
| 376 | tta gag aag caa aag gaa gac gct cag aga cga gtt cag gaa agg gac | 1968 | | |
| 377 | Leu Glu Lys Gln Lys Glu Asp Ala Gln Arg Arg Val Gln Glu Arg Asp | | | |
| 378 | 645 | 650 | 655 | |
| 380 | aag caa tgg ctg gag cat gtg cag cag gag gag cag cca cgc ccc cgg | 2016 | | |
| 381 | Lys Gln Trp Leu Glu His Val Gln Gln Glu Glu Gln Pro Arg Pro Arg | | | |

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 05/25/2005
PATENT APPLICATION: US/09/674,237C TIME: 13:53:58

Input Set : A:\3477.89.ST25.txt
Output Set: N:\CRF4\05252005\I674237C.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:18; N Pos. 102,103

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:28,29,30,31,32,33,36,37

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/674,237C

DATE: 05/25/2005

TIME: 13:53:58

Input Set : A:\3477.89.ST25.txt

Output Set: N:\CRF4\05252005\I674237C.raw

L:2218 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:60